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ABSTRACT

The 2+2 Project in Colorado focused on nine areas. In each of the areas, the emphasis was to identify and to pilot the most promising alternative or alternatives to recommend to local school boards, the State Board of Education, and, when appropriate, the state legislature. Topics addressed were: (1) student assessment options; (2) assessment policies for ensuring high quality teacher and administrator candidates; (3) new approaches for administrator training; (4) training of those persons charged with evaluating certificated staff members; (5) dropout reduction methods; (6) expanded provisions for gifted and talented students; (7) salary incentive possibilities including examination of career ladders; (8) teacher recognition practices; and (9) recruitment programs. A discussion is presented on what has been done in each of these areas and recommendations are made for future action. (JD)

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2+2 Project Report 1987

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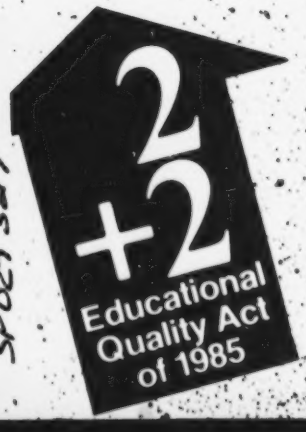

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...after consultation with, but not limited to, the Colorado association of school executives, the Colorado association of school boards, the Colorado federation of teachers, the Colorado education association, and the Colorado parent-teacher association...

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August 1987

FOREWORD

In 1985, major educational changes were being legislated by states across America. However, during a luncheon in Denver, representatives of the major education groups, the PTA, higher education and business decided that Colorado would pioneer a new approach to change. They would assume responsibility for exploring the options for reform and not rely on statutory mandates.

The 2+2 Project growing out of that luncheon is more than this report of 120 individual projects. It is a statement about governance and energizing a profession to address the educational problems being raised in a state that truly cares about education and also about the nurturing of an independent and creative spirit in its people.

For more information on any of these activities, please contact the

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...is directed to use any available moneys appropriated by the general assembly for a general assessment of elementary and secondary education in this state.

EXECUTIVE SUMMARY

Typical of Colorado's independent spirit, the state approached educational reform in a truly unique way. Through the Education Quality Act of 1985, the legislature's approach to reform was new: to allow time to study a variety of programs that held promise for meeting the needs of Colorado's diverse districts, to make sure that Colorado did not act in haste and legislate "reforms" that were neither proven nor appropriate for our state. The Education Quality Act of 1985 was seen as a partnership—legislative approval of the concept, cooperative support by all major education organizations, and funding provided not by the legislature but, collectively, by school districts.

Funding for 2+2 came from school districts in the form of a reduction in state aid of $3.70 per student. The monies pooled equaled $2 million a year for 2 years—hence, the name: 2+2 Project.

The legislature provided a general structure to the project. It fell to the Steering Committee composed of representatives of elementary, secondary and higher education, joining with parents and business leaders, to establish the various 2+2 advisory and technical assistance groups to monitor the nearly 120 projects and research studies conducted in the two-year period from 1985 to 1987.

The 2+2 Project focused on nine areas. In each of the following, the emphasis was to identify and to pilot the most promising alternative or alternatives to recommend to local school boards, the State Board of Education, and, when appropriate, the state legislature:

1. Student assessment options
2. Assessment policies for ensuring high quality teacher and administrator candidates
3. New approaches for administrator training
4. Training of those persons charged with evaluating certificated staff members
5. Dropout reduction methods
6. Expanded provisions for gifted and talented students
7. Salary incentive possibilities, including examination of career ladders
8. Teacher recognition practices
9. Recruitment programs

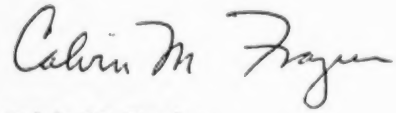
What did we conclude after reviewing the results of the 120 projects? We found that some proposed reforms didn't go far enough. Others were probably doomed to fail in the context of Colorado's decentralized system. In some cases, such as the assessment of students, teachers, and administrators, we confirmed what had been suspected—that Colorado students and professional staff stand quite well in respect to any nationwide comparisons. But we gained significant insights for policymaking in Colorado. Specifically:

1. Colorado students did well on the testing measures used. It is recommended that the State Board of Education adopt a five-year student assessment plan for systematically monitoring student progress in a variety of areas lest the curriculum become distorted through a narrow testing focus. Testing information obtained can be very useful to local and state policymakers.
2. Teachers and administrators should be tested at the time of seeking entry to teacher preparation programs and again at the completion of the requirements. A variety of assessment measures should be used and at least half of the final judgment on entry to the profession should be based on measurement and judgment of teaching and administrative performance.
3. Major new approaches should be adopted to upgrade the quality of administrator training programs. Consideration should be given to the establishment of Regional Educational Development Centers to assist in assessment programs, training, and inservice activities for not only teachers and administrators, but local school board members and education-related personnel.
4. State legislation (HB 1338) has brought Colorado evaluation procedures for certificated personnel to the forefront of the educational agenda. 2+2 monies were used to prepare evaluators for their new tasks under this law. Regional training sessions were well attended. A core of future trainers has been created. Higher education's expertise in this area has not emerged to the extent necessary to maintain the training demands. To achieve the intent of the legislation, it is proposed that a major training commitment be continued for two more years.
5. More than 7,000 students dropped out of Colorado's public schools in 1986. 2+2 projects showed that the dropout rates for the state and individual school districts can be reduced by implementation of specific programs involving preschool through high school students, parents, staff members, and community resources. Districts with above-average dropout rates should implement these proven programs.
6. Before 2+2, approximately 110 of Colorado's 176 school districts did not provide programs for gifted and talented students. Successful program models for these students were established in pilot districts to provide models for all districts in establishing gifted and talented programs by the 1989-1990 school year.
7. Implementing career ladder programs on a district-by-district basis promises to be a slo and generally unsuccessful process. Based o 2+2 findings, this is particularly true if economic conditions retard some salary gai for all staff members. Mentoring, college-university/school district partnerships, and o er incentives appear to offer greater promise f

rewarding and tapping the strengths of outstanding teachers. These approaches should be expanded in the coming years, before we lose some of our most outstanding teachers.

8. Approximately 10 percent of the districts had established ongoing programs for recognizing excellence in teaching. 2+2 efforts extended this number to approximately 60 percent. Many creative approaches were undertaken by districts, and the State Board of Education provided two state level programs to reinforce local efforts.
9. When 2+2 was adopted, there were predictions of severe teacher shortages. Due to cutbacks in other states and a growing interest in teaching among in-state sources, these shortages did not develop except for special education personnel and specific rural areas having a low salary attraction. Recruitment programs failed to uncover major new teacher supply sources but laid the ground work for future cooperative efforts. No good solutions were found for the serious, developing shortage of minority candidates.

Was the 2+2 Project successful? Beyond these specific, summarized findings lay a pattern of collective effort, exploration and inquiry by professionals and others that had an inestimable value. Creative sources were used in a way we had largely ignored for two decades. This contribution is perhaps the greatest payoff to complement the specific policy guidance recommendations. It is no small return to a state system that prides itself on the strengths of a decentralized decision-making pattern.



Calvin M. Frazier
Commissioner of Education

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...to provide for the administration of standardized achievement tests to students in the third, sixth...ninth...(and) eleventh grade enrolled in schools supported, wholly or in part, by state funds...

STUDENT ASSESSMENT

Since 1983, a number of groups including the National Commission on Excellence in Education and the National Task Force on Education for Economic Growth have raised serious questions about the education preparation of American youth.

- American students receive approximately 1,080 hours of schooling per year, compared to 1,600 hours for Soviet students.
- Results from the Second International Study of Mathematics indicated that among grade 12 students, the overall scores of U.S. students on the mathematics study were in the lower half for all of the content areas measured.
- The National Assessment of Educational Progress estimates that 25 percent of grade 12 students can read the **Washington Post** without difficulty, 20 percent can write an effective persuasive letter, and 5 percent can read technical, detailed information without difficulty.

If Colorado is to attract the domestic and foreign business opportunities needed to sustain the state's economic growth and expansion, the state must have a skilled, well-educated populace.

How well are Colorado students doing? Because of the different testing programs conducted by each school district, it was not possible to answer this question at a state level.

The 2+2 Project developed a statewide student assessment program using the following tests to determine the achievement and skills possessed by Colorado public school students.

- The **Iowa Tests of Basic Skills/Tests of Achievement and Proficiency, Form G** were administered to all public school students in grades 3, 6, 9, and 11 during April 1986. The average results for all students indicated that Colorado students achieved above the national average, especially at grades 9 and 11, but that the average achievement scores for most minority student groups (Hispanics, Blacks, and Native Americans or Alaskan Natives) were below the state and national averages. At grades 3 and 6, students attending suburban and rural schools had average scores at or above those for all Colorado students. At the secondary level, the average results for students attending urban or suburban schools were at or above those for all students tested.
- To measure the skills with which students begin their public school experience, the readiness skills of approximately a quarter of Colorado's grade 1 students (over 11,000 students) were tested in November 1986. The average results for all students tested again indicated that Colorado students were above the national average, though the average scores for most minority student groups (Hispanics, Blacks, and Asian or Pacific Islander) were again below the state average. Students who attended preschool as well as kindergarten had averages ranging from 6 to 14 percentile points above those for students who attended kindergarten only.
- The writing skills of 2,000 students per grade in grades 3, 6, 9, and 11 were measured in March 1987. Students in grades 3 and 6 were asked to write a short story in response to a picture. Students in grades 6, 9, and 11 were asked to write a persuasive letter arguing in favor of a needed change or improvement at school. Results indicated that 90 percent of the grade 3 students and 96 percent of the grade 6 students wrote acceptable stories. Seventy-one percent of the grade 6, 86 percent of the grade 9, and 93 percent of the grade 11 students wrote acceptable letters. At all four grades, girls had fewer unacceptable papers than boys.
- The ability-and-achievement of 2,000 students per grade in grades 3, 6, 9, and 11 were tested with the **Cognitive Abilities Test, Form 4** and the **Iowa Tests of Basic Skills/Tests of Achievement and Proficiency, Form G** in April 1987. The average achievement scores for all students tested at each grade were above the national average, and the predicted achievement levels were equal to or slightly higher than the actual achievement levels. This suggests that Colorado students' achievement is generally consistent with their abilities.
- The physical fitness of 3,000 students per grade in grades 1, 3, 6, and 8 will be tested in October 1987. Given Colorado's varied geography, the samples were constructed so that results can be reported by altitude ranges (below 5,000 feet, 5,000 to 6,000 feet, and over 6,000 feet) as well as by sex and age.
- Concern has been expressed nationwide about the abilities of students to solve problems and to use critical-thinking skills. To determine the relative merits of different measures of thinking skills, six tests will be administered to Colorado students on a pilot basis in volunteer schools during the fall of 1987.

There is a need for Colorado school districts to continue their own testing programs. This information is needed by each school district to report to its public in order to fulfill accountability requirements.

However, there also is value in having state-level data and periodic common measures across district The 2+2 student testing data have provided answers t public questions about the condition of public educa tion in Colorado. The data also have been used to

address policy issues. The readiness skills data showed the value of early childhood education. The 1986 achievement data served as the basis for the School Efficiency and Effectiveness study conducted for the State Board of Education. The data also permitted each school district to compare the achievement of its students to that of students from similar school districts.

Recommendations

1. A five-year Colorado Student Assessment Program plan which builds upon the data collected by the 2+2 Project should be adopted by the State Board of Education as one means of fulfilling the constitutional requirement to provide general supervision of Colorado public schools. The long-range plan should be based on input from the education community and the public.
2. The State Board of Education should amend existing accountability/accreditation rules to require school district participation in the Colorado student assessment program.
3. After adoption by the Colorado State Board of Education, a long-range student assessment plan identifying the purpose of testing, the grades to be tested, the types of tests to be used, and the time of testing during the school year, should be sent to school districts to assist in district planning and scheduling.
4. Reports should be provided to school districts for each student and each class participating in a statewide student testing program. Parents, students, teachers, and administrators have a right to such results if instructional time is used for testing purposes.
5. All student assessment materials should be made available to Colorado school districts for possible use at the local level, especially those materials which go beyond skills typically measured by standardized achievement tests.
6. The question of whether every student in a grade or a sample of students in the grade are tested should be determined by the purpose of testing. If the purpose of testing is to provide a profile of performance/achievement for the state and student groups, then a sample of students should be tested. If the purpose is to provide information about individual school districts, then all students should be tested.
7. The long-range student assessment plan should contain a degree of flexibility. Some of the data collection points should be fixed, to allow for appropriate planning by school districts and the Colorado Department of Education. Others should be open to change, based on the current need for information.

...to provide for the assessment of the quality of teacher and administrator education programs and of teachers and administrators completing education programs and applying for Colorado certification or endorsement...

ASSESSMENT OF FUTURE TEACHERS

Recent national reports on the condition of America's teaching force have raised serious questions regarding the quality of future teachers. Some national findings:

- Today's teacher candidates have significantly lower college entrance examination scores.
- National Teacher Examination, high school grade point averages, SAT and ACT scores have also declined for future teachers.
- Only 1 percent of the 1985 National Merit Scholars indicated an interest in teaching.
- The most academically able teachers appear to be leaving teaching in high numbers.
- Minority candidates tend to score lower than Anglo candidates on most paper and pencil examinations.

Because of the question of the quality of future teachers, about 30 states now require new forms of paper and pencil testing to establish minimum knowledge and competencies for teacher candidates. At least 11 states have developed evaluation measures to assess effective teaching performance.

How can the state of Colorado best assess future teachers to ascertain their teaching capabilities? The 2+2 Project conducted a large scale assessment project to examine the quality of teacher candidates in Colorado's colleges and universities and determine how they compare nationally.

Four hundred out of 700 student teachers voluntarily took the National Teachers Examination in Communication, General Knowledge and Professional Knowledge. The findings:

- Colorado candidates scored in the upper one-third of teacher candidates nationally on all aspects of the tests.
- Colorado candidates scored well over the 50th percentile on every subject area test including social studies, physical education, English language, mathematics, elementary education and science.
- The scores of minority candidates were lower than those of Anglo candidates (similar to national-level results).

Eighty-five student teachers were randomly selected to have their teaching abilities assessed during their student teaching assignments. The findings:

- Using the Florida Performance Measurement System, Colorado teacher candidates exhibited more effective teaching behaviors than experienced teachers in Florida.
- Performance assessment is a more effective way to assess future teacher quality than paper and pencil testing.
- Males and females did not differ on the performance assessments.

All teacher candidates' records were examined for grades, test scores and related background information. The findings:

- The average undergraduate grade point average in both the subject major and education combined was 3.24.
- The grade point average in a major field of study was 3.32.
- The education grade point average was 3.56, similar to other professional groups.
- The American College Test (ACT) English score was 22.1. (The national average is 18.)
- The American College Test (ACT) math score was 22.3.
- Female candidates tended to score slightly higher than males on standardized tests and represent 68 percent of the Colorado teacher candidates.
- Fewer than 10 percent of the teacher candidates are minorities, with 6.6 percent Hispanic, 1.3 percent Asian and fewer than 1 percent Black and American Indian.
- Of the teacher candidates participating in the study, 83.5 percent earned their undergraduate degrees in Colorado.
- More than one-half were over 30 years of age, a significant departure from past years.

The effectiveness of a student teacher is difficult to determine using only a paper and pencil test. Data collected through 2+2's comprehensive studies casts a positive light on the quality of Colorado teacher candidates. Colorado's prospective teachers performed well on all of the measures used.

Recommendations

1. Several assessment processes should be used by the higher education institutions to establish admission to teacher education programs in Colorado. These could include grades and other achievement scores. Qualifying scores should be set to demonstrate the acquisition of basic skills requisite to teaching but not to eliminate promising candidates.
2. A written essay and personal appraisal processes should be required by the state as part of the admissions criteria by the state to supplement grades and standardized testing.
3. Rather than passing only a paper and pencil test to determine the adequacy of professional and subject matter knowledge, the teaching assessment should be weighted toward actual teaching effectiveness. Institutions of higher education should be encouraged to pilot test other forms of exit approaches to graduation from college and entry tests for acceptance into teacher education programs.
4. The state should develop new standards of performance for beginning teachers and conduct structured performance assessments for all teacher

candidates. A trained team of educators, consisting of the supervising teacher, a school administrator and university professor, should be responsible for recommending provisional certification of the candidate to the state of Colorado.

5. Criteria should be established by the state to identify "master" or "mentor" teachers who would assist in the observation, training and supervision of both student teachers and provisionally certified teachers.
6. Regional Educational Development Centers (partnerships between districts, Boards of Cooperative Educational Services (BOCES) and institutions of higher education approved and monitored by the Colorado Department of Education) should be developed and established in strategic locations around the state to assist in implementing the above recommendations in the following ways:
   - Assist in assessing student and intern teachers.
   - Assess provisionally certified teachers.
   - Facilitate remediation of teachers not meeting school district performance standards.
   - Conduct training sessions for master teachers and recognized evaluators.

STRENGTHENING TEACHER PREPARATION PROGRAMS

Teachers are the essential resource in improving student learning. Various national recommendations for strengthening teacher preparation and helping to restore public confidence in education include abolishing the undergraduate degree in education, creating rigorous professional standards and restructuring the career of teaching to recruit quality teachers.

How can teacher preparation programs in Colorado be strengthened to insure high quality of future teachers?

The 2+2 project worked with Colorado institutions of higher education to examine and modify teacher preparation programs and bring them in line with current recommendations for the teaching profession.

The suggestions of over 150 citizens and educators were solicited through three seminars sponsored by the Commissioner of Education. Two visits to each institution of higher education brought recommendations from 200 college professors, deans and academic officials. In the past five years, at least three major external evaluations of every Colorado teacher preparation program resulted in continual revisions in programs to increase effectiveness.

Recommendations

1. The core curriculum should be more rigorous for all undergraduates, including teacher education candidates, emphasizing liberal arts but including instruction in language and culture, writing and speaking skills, and interpersonal skills. The curriculum should also be reviewed in the first- and third-year assessment of teacher preparation.
2. The study of teaching should emphasize critical thinking and problem solving, combined with research and practice.
3. Diverse yet comprehensive field experiences should be integrated throughout the teacher education system. Quality site and supervisor selection should be a high priority to ensure quality preparation.
4. A high quality internship program for beginning teachers should be developed as an alternative to the present student teaching system. Master and mentor teachers should be identified in local districts to work with intern teachers and provisional teachers in their early years of employment.

TEACHER CERTIFICATION AND RECERTIFICATION

Professional licensure and certification is seen as a state responsibility to ensure the quality of school personnel. A National Board, advocated in the Carnegie Report for teacher certification, is viewed as a method to strengthen the teaching profession by recognizing a higher professional standard beyond state certification.

Issues identified in major national reports, **A Nation at Risk**, **Time for Results**, **Tomorrow's Teachers** and **A Nation Prepared**, include length of certification programs, alternative routes to certification, teacher shortages, quality of certification programs, standardized testing as a certification requirement, teacher retention and administrator training.

- **Certification**
  For licensure/certification most states have established the criteria of a baccalaureate degree, student teaching, and teacher preparation courses. The recent increase in standardized testing for the initial certificate is a direct result of a national desire to strengthen quality control standards for teachers.

  States are being encouraged to pursue state recognition by the National Council for the Accreditation of Teacher Education (NCATE) to facilitate the reciprocity of certificates and thereby increase teacher mobility.
- **Recertification**
  Quality personnel must be retained by restructuring the schools to provide appropriate incentives. School districts must also commit time and resources to maintaining quality in-service programs dealing with technological advancements in the teaching profession.

How can the state exercise quality control of professionals entering public education, retain qualified professionals, and provide for the standardization of licensure between states?

Activities by the 2+2 staff included:

- A national certification study.
- Review of interstate agreements to ease professional mobility.
- Examination of state standards in all 50 states.
- Review of new standards of NCATE for possible adoption in Colorado.
- Alternative teacher certification project at Metropolitan State College.
- Northeast Colorado BOCES project to identify and select teachers and to develop individual educational programs.

Recommendations

1. Certification of professionals is a state responsibility and should be continued by the Department of Education. Trends toward increased national involvement in certification should be evaluated, particularly the role of professional organizations.
2. Provisional certification should be based upon completion of an approved program, college graduation, knowledge assessment, and performance assessment.
3. Certification assessment for out-of-state candidates should include professional knowledge and specialty-area examinations.
4. Regular certification should be based upon holding a provisional license, three years of experience, and successful performance evaluations.
5. Recertification should be based upon remaining current in professional and specialty-area knowledge and performance evaluations.
6. Colorado should actively explore state recognition by NCATE to provide national criteria, in addition to state criteria, for certification.
7. Approved preparation programs should continue to be based on Colorado State Board of Education certification and endorsement standards. Standards should reflect the knowledge needed to be a teaching professional and the curriculum needs of public school districts.
8. Alternative routes to certification should be encouraged and evaluated.

Project Participants

Jefferson R-1, Jefferson County
Northeast Colorado BOCES:
- Logan RE-1, Valley
- Logan RE-3, Frenchman
- Logan RE-4(J), Buffalo
- Logan RE-5, Plateau
- Phillips RE-1J, Holyoke
- Phillips RE-2J, Haxtun
- Sedgwick RE-1, Julesburg
- Washington R-1, Akron
- Washington R-2, Arickaree
- Washington R-3, Otis
- Washington 101, Lone Star
- Yuma RJ-1, West Yuma County
- Yuma RJ-2, East Yuma County
- Northeastern Junior College

Colorado State University
Metropolitan State College
University of Colorado, Boulder
University of Colorado, Denver
University of Northern Colorado

ASSESSMENT OF FUTURE SCHOOL ADMINISTRATORS

Literature on effective schools identifies the leadership of the school principal as a major factor in producing effective schools. The fundamental points regarding the principal as a school leader can be summarized:

- Development of reliable methods to accurately assess the skills required of the principal.
- Development of clear expectations and role descriptions for the principal.
- Training principals in the skills required or expected to carry out the responsibilities of the job.
- Targeting recruitment programs to determine the candidate's scholarship and leadership potential.
- Requiring higher standards in preparation programs, using more appropriate job-related content and instructional strategies, and emphasizing leadership.

How can the State of Colorado best assess future school principals to ascertain their leadership potential?

Three major projects were initiated by 2+2 to address the problem:

1. **Administrator Candidate Testing:** A major study addressed how candidates for education administration in Colorado institutions of higher education performed in terms of general and professional knowledge. The study included the candidates' scores on the National Teachers Examination, a writing sample, and ratings on an administrative skills performance inventory.
   - Those persons preparing to be Colorado school leaders are among the highest quality in the nation. The average scores on the National Teachers Examination (NTE) were greater than the cut-off scores currently used in all states which require the NTE for certification.
   - The undergraduate grade point average is an effective academic screening criterion for program admission. Additional basic skills testing is not necessary for administrator candidates, except where the undergraduate grade point average is deficient.
2. **Potential Administrator Assessment:** A major pilot project with the East Central and Mountain Boards of Cooperative Educational Services, and in collaboration with the Colorado Association of School Executives and the Colorado Association of Professors of School Administration, addressed the need in rural districts to identify and assess potential administrator candidates. The project also addressed the need to assist rural candidates in planning and qualifying for the appropriate administrator credentials.
   - The National Association of Secondary Schools Assessment Center Program is a valid and reliable process for assessing administrator potential in 12 skill areas. Results can be used in assisting the candidate in planning professional growth activities.
   - Cost effectiveness can be achieved when districts, Boards of Cooperative Educational Services, participants and the state share costs of assessments.
3. **Technology Utilization:** The University of Colorado, Colorado State University and the University of Northern Colorado studied the use of computer technology in administrator self-assessment and management growth needs.
   - Managerial diagnostic and training software can be adapted to the educational setting to provide quality assistance to school leaders especially in rural areas where such assistance is not readily available.

Recommendations

1. Regional Educational Development Centers, currently recommended for development throughout Colorado, should employ several diagnostic techniques to assess desired behaviors, skills and knowledge and provide potential administrator candidates with a profile of their strengths and limitations which would be addressed during preparation programs.
2. The administrator internship should be performance/competency based and should emphasize opportunities for a candidate to address limitations. The Regional Educational Development Centers should provide for ongoing assessment.
3. Performance assessment devices can be used to evaluate the attainment of administrative skills in preparation programs. Paper and pencil testing upon exit from a program should be discarded in favor of more current assessment procedures.

STRENGTHENING ADMINISTRATOR PREPARATION PROGRAMS

Several major issues have been identified nationally concerning administrator preparation programs. Standards for programs in Colorado are currently set by the State Board of Education and are stated in terms of skills administrators should have to be effective. The institutions of higher education then decide how best to meet these standards.

Some concerns about administrator preparation programs are:

- The part-time status of most educational administration students does not compare favorably to the full-time status of schools for other professions.
- Administrator internships are often designed for the convenience of the student, often do not adequately reflect the job of an educational administrator, and are too short in duration.
- Administrator preparation programs are sometimes characterized as having inadequate content

and as lacking practical application.

- In Colorado, access to administrator preparation programs has been difficult for many candidates due to the geographical diversity and expanse of the state.

How can administrator preparation programs in Colorado be strengthened to insure high quality and greater access?

The 2+2 Project has pilot tested several approaches to address these issues:

- Development of revised standards for administrator preparation programs.
- Performance assessment of administrator interns.
- Writing sample for potential administrators.
- Comprehensive study of content for administrator preparation programs.
- Comprehensive examination of access to administrator preparation programs in Colorado.
- Cooperation with the Colorado Association of Professors of School Administration.

Findings indicate that:

1. Universities should strengthen admission standards.
2. The core curriculum for preparing school administrators should be revised in light of current research on effective leaders.
3. Internships are insufficient in their present form.
4. Administrator preparation programs are available only in urban areas limiting access to those from rural, plains and mountain areas.

Recommendations

1. State standards should be revised to reflect the latest research on effective administrators.
2. A student assessment provided by a Regional Educational Development Center or the preparing university should provide a profile for each student as to his/her strengths at time of admission. This should serve as the basis for an individual education plan which indicates course work to be taken in addition to the core curriculum.
3. Program content should be balanced between knowledge and technical skills to produce effective administrator behaviors and should contain the following components:
    - Knowledge
    - Technical skills
    - Interpersonal skills
    - Intellectual skills
4. Instructional strategies in administrator training should include greater use of methods conducive to adult learning such as case studies, video technology, coaching and paired learning.
5. Instruction in administrator preparation programs should come from all persons having expertise in the field of leadership including professors from diverse fields, practitioners, business and industry leaders.
6. Internships should be full-time for either a semester or a school year with grants, scholarships, sabbatical leaves and forgivable loans readily available.
7. The administrator internship should be performance and competency based, designed to strengthen the intern, and be supervised by a carefully selected school leader with strengths in those same areas.
8. Administrator preparation programs for remote areas should be planned and delivered by the Regional Educational Development Centers.

ADMINISTRATOR CERTIFICATION AND RECERTIFICATION

Certification of school administrators is required in all 50 states. Traditionally, certification requirements consisted of completion of an approved administrator preparation program and, in some states, the successful passing of a knowledge exam. Once certification was obtained, a person was considered fully qualified and competent to be a school administrator.

Administrator certification is a quality control measure to ensure that qualified administrators are leading the nation's schools. The role of each state department of education and state board of education is to set standards for and approve administrator preparation programs as well as to set requirements for certification and issue the certificates.

It is usually left up to individual institutions of higher education as to how to meet state standards.

Attitudes toward initial administrator certification have already begun to change in this country. Many states have determined that completion of an administrator certification program cannot result in a fully prepared, totally competent school administrator. Instead, initial certification signifies that a person is competent to obtain his/her first position as a school administrator but needs further skill development by receiving on-the-job training in some cases, under the supervision of an experienced administrator.

Some states such as California, Florida, and Tennessee have adopted a tiered system of administrator certification with each tier representing a different level of competence. Colorado is now issuing a provisional, or Type P, certificate to new school administrators.

In the past, **recertification** of school administrators has required a given number of university or inservice credit hours within a given number of years. By adopting tiered or provisional certificates, many states are recognizing that recertification must be based on a person's performance/competency once he/she assumes an administrator's duties.

In Colorado, three questions are raised by administrator certification and recertification:

1. What are the evaluation procedures that indicate a need for remediation/improvement in administrative skills?
2. Should initial administrator certification indicate only that a person has the requisite skills to obtain a first administrative position in Colorado?

3. How can a common ground be found with other states in reciprocity agreements for recertification of school administrators so that outstanding school leaders can be attracted to Colorado without financial or status loss?

From 2+2 pilot studies it was found that performance as an administrator intern cannot be predicted by merely considering grades or the test scores in graduate programs.

- Persons having more years of experience outside of education were rated lower on administrative performance by supervisors than those with educational experience.
- Successful classroom teaching experience was not found to be an indicator/predictor of successful administrative performance, test scores or grades received in administrator training programs.
- Performance assessment is a better indication of administrator performance at the internship level than a paper and pencil test.

Most states are examining their standards for administrator endorsements. 2+2 has completed and presented a report to the Colorado Commission on Teacher Education and Certification.

- A careful study of administrator certification should be carried out so that these endorsements best meet the requirements needed to staff Colorado schools.
- Colorado educators and citizens should be regularly convened to examine and revise administrator preparation and certification in Colorado.

Recommendations

Certification

1. A precertification assessment process using a variety of measures based upon needed administrator skills and knowledge should be developed by the state and institutions, practitioners, and professional associations to assess the academic preparation of administrator candidates.
2. All instate and out-of-state applicants should be required to pass an assessment prior to the issuance of a Type P administrator certificate.
3. The Type P administrator certificate should continue as the initial certificate for prospective administrators.
4. The holding of a Type P administrator certificate should be the minimum requirement for serving as a principal in a Colorado school district.
5. Provisional candidates may achieve regular certification by fulfilling administrative competencies through demonstrated excellence in on-the-job performance.
6. A Colorado Administrator Certification Standards Committee should be created to help strengthen administrator quality in Colorado.
7. Classroom teaching experience should be a requirement for principal's endorsement, but not for that of superintendents.

Recertification

1. Recertification should be based upon a process of continual performance assessment which could lead to additional course work or supervised study programs.
2. Colorado should affiliate itself with the "professional designation" currently being developed by Carnegie's National Standards Board.
3. A minimum of six semester hours of credit should be required during the life of provisional and regular certificates. Performance evaluations will determine when additional hours are needed for recertification.

General

1. The issuing of administrator certificates must continue to be a state responsibility.
2. Assessment programs should be established in conjunction with the Regional Educational Development Centers to assess prospective administrators prior to certification and to provide inservice for administrators as part of recertification.

Project Participants

Colorado State University
University of Colorado, Boulder
University of Colorado, Denver
University of Northern Colorado
Western State College

to improve the training of educational administrators and the upgrading of persons charged with evaluating school personnel.

ADMINISTRATOR TRAINING

Traditionally, professional development activities for administrators have been the result of the need for credits for recertification. Development activities often consist of short workshops on specific topics and university course work.

Few school districts offer incentives to administrators for upgrading their skills. This is shown in the low resource allocation for such activities on the part of many districts.

Research on effective schools indicates that administrators of effective schools are the schools' "chief learners". Ways must be found to promote this role for all administrators. In view of the lack of mobility within the profession, not only must administrators be encouraged to be lifelong learners and to keep their skill levels high and up to date, but also to rejuvenate their enthusiasm for their work.

How can the state of Colorado develop effective models for training administrators to assure high levels of job performance and professional development?

The 2+2 Project developed, studied or pilot tested:

- New assessment approaches in Commerce City, Westminster and several rural districts.
- New training materials for use with administrators with Jefferson County, the University of Colorado, Colorado State University and the University of Northern Colorado.
- Innovative leadership training models using the public, private and educational sectors in Greeley, Loveland, Longmont, Windsor, Estes Park and Pueblo.
- New patterns of participatory leadership at the building level in Fort Collins and at Green Mountain High School.
- School district administrator training programs.

These activities found that:

- Urban and suburban Colorado school districts are more likely to have staff development programs for administrators than are rural and outlying districts.
- Urban and suburban Colorado school districts are more likely to have formal evaluation procedures for administrator development programs than are rural agricultural, rural mountain, and outlying districts.
- The most effective development programs reportedly spent 10 times the amount of money per trainee than the least effective programs ($668.00 in contrast to $56.00).
- Four characteristics correlated highly with districts that reported effective administrator inservice development programs:
  - the programs combined theory and practice.
  - participants were actively involved in the activities.
  - objectives were clearly stated.
  - adult learning principles were incorporated into the programs.

Recommendations

1. Training and recertification programs for administrators should be continuous and be the result of a comprehensive appraisal of administrator skills and knowledge.
2. Several approaches for training administrators should be utilized. These models must include:
   - Active participation rather than lecture or rote learning.
   - Attention to adult learning principles including problem-solving and critical thinking skills which relate to on-the-job behaviors.
3. Development of administrator training activities should be a cooperative effort among Boards of Cooperative Educational Services, the Colorado Department of Education, private sector consultants, school districts, and various university departments, including education, business, and arts and sciences.
4. More comprehensive and systematic efforts should be made toward the evaluation of professional development activities with regard to both cost effectiveness and improvement of participant on-the-job performance.
5. Regional Educational Development Centers should be established. Skilled personnel should be available to conduct multiple assessment procedures that will identify growth areas for practicing administrators.
6. "Assessment" of both future and current administrators must be diagnostic in nature and used for determining areas of limitations and expansion of skills for each assessee. These must be separated from "evaluations" which indicate current skill levels and are used by local districts for hiring and dismissal decisions.

Project Participants

Adams 14, Commerce City
Adams 50, Westminster
Jefferson R-1, Jefferson County
Larimer R-1, Poudre
Pueblo 60, Pueblo City
Weld 6, Greeley

East Central BOCES:
Adams 29J, Bennett
Adams 31J, Strasburg
Arapahoe 32J, Byers
Arapahoe 26J, Deer Trail
Cheyenne R-1, Kit Carson
Elbert 300, Agate

Kit Carson R-4, Stratton
Kit Carson R-5, Bethune
Kit Carson RE-6J, Burlington
Kit Carson R-20, Arriba-Flagler Consolidated
Kit Carson R-23, Hi-Plains

Mountain BOCS:
Chaffee R-31, Buena Vista
Chaffee R-32, Salida
Eagle RE-50J, Eagle County
Garfield RE-1J, Roaring Fork
Garfield RE-2, Garfield
Garfield 16, Parachute
Lake R-1, Lake County
Park RE-2, Park County
Pitkin 1, Aspen
Summit RE-1, Summit

Northern Colorado BOCES
Boulder RE-1J, St. Vrain Valley
Larimer R-2J, Thompson
Larimer R-3J, Park
Weld RE-4, Windsor
University of Northern Colorado
Hewlett-Packard
Eastman Kodak
State Farm Insurance

to implement the provisions of the Certificated Personnel Performance Evaluation Act

EVALUATOR TRAINING

Many of the national reports recommending improvements in public education have called for more systematic evaluation of teachers and administrators to increase accountability and improve the quality of instruction.

The Certificated Personnel Performance Evaluation Act passed in 1984 requires that all districts have fair, professional evaluation systems for teachers and administrators.

In order to ensure that districts were able to implement these evaluation systems effectively, the 2+2 Project provided training activities to improve the skills of administrators and teachers. These activities helped evaluators conduct more precise, focused evaluations. Such evaluations help to improve the performance of teachers and administrators, and, ultimately, the quality of the education Colorado's school children receive.

The 2+2 Evaluator Training Program addressed the following issues:

- Ensuring that school districts have quality evaluation systems for professional staff.
- Bringing about the improvement of instruction.
- Helping guarantee that evaluators have the skills necessary to conduct fair, professional evaluations.
- Promoting the professional growth of teachers and administrators.
- Verifying that curriculum is being taught effectively and efficiently.
- Providing accurate information on the level of performance of professional staff.

Six basic types of activities were conducted to improve the quality of evaluation in Colorado:

1. Over 1,800 educators participated voluntarily in courses and workshops on Effective Evaluation Techniques. Ninety-three separate activities were conducted throughout the state.
2. Courses in Effective Teaching Techniques were offered to aid evaluators in identifying good teaching. Administrator/teacher teams frequently attended these sessions, helping to ensure that these techniques will be put into practice in their schools.
3. A small group of educators received more intensive training to enable them to teach these courses to others. This network of skilled trainers includes participants from rural and urban districts. These individuals were then able to improve the quality of staff development programs in many districts.
4. The Department of Education provided technical assistance to individual school districts attempting to improve their evaluation systems. More than 20 districts, including some of the largest in the state, continue to refine their evaluation systems beyond the requirements of the law.
5. Nationally recognized experts and outstanding evaluation programs were presented to Colorado administrators and teachers. Many districts are incorporating state-of-the-art techniques into their systems.
6. A series of 12 additional training projects were conducted by Boards of Cooperative Educational Services (BOCES) throughout the state. These projects, targeted primarily for rural areas, were developed at the local level to meet the unique needs of smaller districts. Over 800 educators participated in these projects.

A wide variety of evaluation systems and techniques are currently employed statewide, each designed to meet the needs of individual districts. Participation in training activities, such as those presented by the Evaluator Training Program, help each district acquire the expertise necessary to conduct fair, professional evaluations which lead to improved instruction.

Many educators who wanted to participate were not able to do so. Opportunities for training need to be available for these people and new teachers and administrators.

In a local-control state such as Colorado, centralized leadership needs to be provided so that districts have access to the most current and effective practices possible. They must then choose which of these best meet their needs.

Recommendations

1. Resources for the continuation of evaluator training need to be available for a minimum of two more years. Such training should be provided through Regional Educational Development Centers.
2. Regional Educational Development Centers must be created. These centers will become the focal point for a variety of activities designed to improve education. Such centers will offer classes for recertification, help assess out-of-state candidates applying for Colorado credentials, provide a vehicle for the distribution of the latest and most effective educational practices, and serve as demonstration sites where educators can practice and receive feedback on newly developed skills.
3. The Department of Education must continue to provide technical assistance support to districts as they refine and improve their evaluation systems. Districts need to be able to locate resources quickly and centrally when they attempt improvement. The Department of Education has high credibility in this area and needs to continue in this role.
4. Most efforts to date have addressed teacher evaluation. Additional support is needed for the development of systems for evaluating administrators.
5. Preparation programs for administrators and teachers must contain much of the information being cur-

rently presented by the Evaluator Training Program. The Program Review Process conducted by the Department of Education can be used to ensure that graduates of preparation programs receive training necessary to identify and use effective instructional techniques and to conduct professional evaluations. This revision must be given a high priority by institutions of higher education, the Department of Education and the Colorado Commission on Higher Education.

6. A Trained Evaluator Specialization for administrators and teachers needs to be created. This would allow expert evaluators to be recognized at the local and state level. Individuals so designated would train others, demonstrate effective techniques, and provide technical assistance to evaluators. Districts should be encouraged to reward administrators so designated with increased pay. Such status would be awarded through Regional Educational Development Centers in conjunction with professional associations, school districts, and institutions of higher education.
7. The State Board of Education, in partnership with the State Evaluation Council, must take an active role in identifying promising practices and techniques in personnel evaluation in Colorado school districts. These practices and techniques will then serve as models for districts interested in improving evaluation.

Project Participants

East Central BOCES
Northeast Colorado BOCES
Northern Colorado BOCES
Northwest Colorado BOCES
San Luis Valley BOCS
Southeastern BOCES
South Platte Valley BOCES
Southwest BOCS
Weld BOCES
West Central BOCES

monies may be used to study, develop and pilot

REGIONAL EDUCATIONAL DEVELOPMENT CENTERS

Under 2+2 auspices, several projects were initiated to develop alternative arrangements to assess and train educators. These "centers" developed potential teacher assessment techniques and provided onsite delivery of courses from Colorado school districts and institutions of higher education. Seminars and training activities were conducted by 2+2 and teacher mentor programs were developed in Pagosa Springs, Jefferson County and at the University of Northern Colorado.

How can the state utilize all resources in the most effective and efficient manner to improve both teacher preparation and certification, and the quality of prospective and practicing professional teachers, administrators and special services personnel?

Activities by the 2+2 staff included development of:

- Assessment procedures by Northeast BOCES to identify and select prospective teachers pursuing teacher certification.
- PROBE (Problem-Based Education) program at University of Colorado-Boulder.
- Alternative teacher certification project at Metropolitan State College.
- Jefferson County projects on mentor teaching and new teacher induction.

The collaboration between higher education and public education agencies is an effective way to strengthen the quality of educational programs in the state.

Recommendations

1. Regional Educational Development Centers should be established in Colorado to perform the following functions:
   a. **Assessment:** Train personnel to assess the educational needs of prospective teachers, administrators and special services personnel during the college field service phase, during local district induction and throughout the provisional certification period.
   b. **Mentorship training:** Identify mentors to train new teachers, administrators and special services personnel during the district induction period.
   c. Evaluator training: Continue training evaluators to increase the evaluator pool, to maintain evaluator performance, and to educate districts relative to current research and practices in evaluation.
   d. **Delivery site:** Coordinate college- and university-level courses and shared district inservice activities.
   e. **Technology utilization:** Promote greater use of state and district resources in the development of technological advancements for school and college classrooms.
   f. **Inservice training:** Provide services for school board members and other related educational personnel such as librarians.
2. The basic administrative functions of Regional Educational Development Centers should be supervised and funded by the State Department of Education.
3. The educational functions of the Regional Educational Development Centers should be funded through local district, BOCES and college/university cooperative arrangements and user fees.
4. Several demonstration centers should be developed in 1987-88 to field test the utility of this approach.

to study the dropout problem and to establish a program to reduce the dropout rate among Colorado students.

DROPOUT PREVENTION

In 1985-86, 7,624 students left Colorado's public schools before completing high school. A recent national survey conducted by the Educational Testing Service shows that the majority of students leave because they do not like school and they have poor grades. The message that they are failures has become so strong that the bleak alternatives of leaving peers and facing an uncertain future become more attractive than staying where they feel they no longer belong.

Those who drop out are often those who could most benefit from a good education: they are the disadvantaged, the minorities, the gifted and talented of our society. The consequences of these young people not completing high school:

- The cost to society of dropping out exceeds $200,000 per individual over his or her lifetime and $200 billion dollars for each school class across the United States.
- Dropouts will have higher unemployment rates than their graduating classmates.
- Dropouts are more likely to have an encounter with the legal system. Over half of Colorado's prisoners are dropouts.
- Dropouts are more likely to receive welfare than graduates.

The Colorado Department of Education with the 2+2 Dropout Prevention Council agreed that the main direction should be in prevention rather than retrieval programs. Eight districts were selected to pilot test activities.

As a result of these pilot projects, positive changes can be seen that will reduce the dropout rate:

- Increased attendance at elementary, middle and high school levels.
- Increased community involvement through trained mentors who work in a personalized way with at-risk students.
- Improved academic performance and a reduction in the numbers of students repeating a grade.
- Increased parent involvement with the schools.
- New alliances with business that will assist students to obtain job skills and jobs.
- Actual decrease in dropout rate from the previous year.

In addition to the pilot projects, 2+2 sponsored research in order to understand more about the high dropout rate in the Hispanic population. The study shows that:

- Students who do well in school and graduate are more likely to have been read to as children than their counterparts who do not do well in school.
- Students who come into the system performing at an average or above average level are more likely to do well in school and graduate than their counterparts who start out behind in the system.
- Students with good attendance patterns do better in school.
- All parents want their children to succeed in school and to graduate.

In cooperation with the Governor's Job Training Office, 2+2 trained 17 teachers to become trainers in the High/Scope program. High/Scope is a preschool curriculum with proven effectiveness in increasing academic performance, graduation rates, college attendance and employment as well as reducing encounters with the criminal justice system and lowering teenage pregnancy rates.

These teachers have completed their work and will be available to train others in the fall of 1987.

The initial results of 2+2's work are encouraging. Successful programs that were piloted in cooperation with local districts include early identification of at-risk children, cooperative learning programs, home/school liaisons, peer mentorships, family mentorships, community mentorships, summer school, middle school attendance efforts, parental support groups, tutoring, staff development, alternatives to suspension, the School to Work Action Program with the Colorado Alliance of Business, and preschool through 12th-grade dropout prevention model programs.

The eight pilot districts were Rocky Ford, Walsenburg/Gardner, Pueblo, Mapleton, Greeley, Montrose, Grand Junction and Durango.

The 2+2 Dropout Prevention Project attracted $464,500 from other sources including the Governor's Job Training Office, Matsushita Foundation, Ford Foundation, Dayton Hudson Corporation, the U.S. Department of Education, the Colorado Department of Social Services, the Colorado Alliance of Business, and the Colorado Trust. In addition, one local district (Greeley) has picked up its original 2+2 grant funded at $40,000 and expanded it to a $100,000 project for next year.

2+2 has stimulated change on an important issue with a minimum amount of funding. This effort should be continued to take full advantage of the momentum that currently exists.

Recommendations

1. The Colorado Department of Education should continue to collect evaluation data on the effectiveness of the 2+2 model projects and monitor the dropout rate in grades 7-12.
2. The School Finance Act should be changed to provide funding for dropout prevention programs that would include early childhood education for three-and four-year-olds, reduced student/teacher ratios in grades K-3, and summer activities for at-risk youth.
3. Accreditation rules should be changed to require that any district having a dropout rate higher than the state average have a preschool through 12th

grade program and monitoring system in place by the following year.

4. Local school districts should develop programs that deal with assisting students in transition, either between schools or in receiving students from other districts.
5. Colleges and universities need to increase their involvement with local districts. This could include assisting students in the middle school years develop plans that could lead to a college education. They must also recruit and train more minority teachers to serve as mentors and role models.

Project Participants

Adams 1, Mapleton
Denver 1, Denver County
Huerfano RE-1, Huerfano
La Plata 9-R, Durango
Mesa 51, Mesa County Valley
Montrose RE-1J, Montrose County
Otero R-2, Rocky Ford
Pueblo 60, Pueblo City
Weld 6, Greeley
University of Denver
The Clayton Foundation
School-to-Work Action Program

to study and establish special programs for gifted and talented students.

GIFTED AND TALENTED

Before the passage of the Educational Quality Act of 1985 (2+2) there was no state funding available for the development of educational programs for gifted and talented students. Services for these students varied widely across Colorado, with little in the way of teacher training or curriculum available.

- Provisions for the gifted and talented have an extremely low priority in competition for federal, state and local educational dollars.
- Two-thirds of the school districts in Colorado reported no gifted and talented programs in 1983.
- Minority, culturally different and creatively gifted students are scarcely being reached in existing gifted programs.
- Gifted and talented children, contrary to myth, are not succeeding on their own. Research has shown that they require specialized educational services to reach their potential.
- There is inadequate preparation for teachers at the undergraduate and graduate level to deal with gifted and talented students.
- Identification of gifted and talented students is inconsistent from district to district.

After researching many of the existing gifted programs in Colorado and throughout the nation, a model was designed for 2+2 that provided a kindergarten through 12th grade system of comprehensive services for gifted and talented students. A group of school districts from all over the state have worked together to build this model. Each site developed and demonstrated a different piece of the whole:

- Aurora and Mesa Valley school districts developed programs for young gifted children in grades K-2.
- Elementary programs were developed by Calhan, Brighton, Adams 12, Gilpin, Poudre, and Denver.
- Secondary programs were implemented in Weld County, Steamboat Springs, Boulder Valley, Akron and Englewood.
- Jefferson County demonstrated a continuous program, kindergarten through grade 12, with agreements on definition of giftedness, identification and programming strategies.
- Regional Center programs which provide cooperative services for gifted students were organized by Northwest Colorado BOCS, San Luis Valley BOCS, Adams County BOCES and Colorado Springs Districts 11 and 20.
- A Summer Institute on Integrated Arts was offered by Clayton College. The Teacher Scholars Program provided training for teachers.

Each school district or agency receiving 2+2 funding added its own funds and/or human resources to support its project. After two years of 2+2 support, many of the participating districts will continue to fund their own programs for the 1987-88 school year.

Recommendations

1. The Colorado State Board of Education should adopt a broad definition of giftedness which includes different types and levels so that appropriate services can be delivered based on need. Currently the definition of giftedness which appears in the Exceptional Children's Educational Act is utilized by 90 percent of the states in the United States.
2. Each of Colorado's school districts should identify and serve the special needs of gifted and talented students K-12. Each identification plan must match identification criteria with the district's program operation and expected outcomes. The plan must assure that all qualified children are identified—including those who are highly gifted, minority, disadvantaged, or handicapped.
3. Each school district should develop a comprehensive program that specifies goals, programs, and services for gifted and talented students. These programs should comply with both state accreditation standards and the philosophy of the individual district.

   Examples include: adaptation of the regular curriculum for gifted students, acceleration, early entrance and exit from school, concurrent enrollment in high school and college, diagnostic-prescriptive placement, and provisions for counseling.

   Additional educational programs such as Summer Institutes, Future Problem Solving Competitions and Odyssey of the Mind should be included as opportunities for gifted students.

   The gifted and talented program should be developed in such a way that the definition, identification plan, program and services are appropriately matched.
4. Specific training of teachers for working with gifted and talented students needs to be established in Colorado's colleges and universities. At the undergraduate level, teachers in training should receive instruction about the educational needs of gifted students and strategies to provide effective learning experiences. At the graduate level, qualifications should include theory, current research and practical application.

   All teachers should be required to take one course on the educational needs of gifted students as part of the requirements for certification. An endorsement from an approved gifted and talented educational program should be available to teachers.
5. The Colorado Department of Education should take a leadership role with school districts, colleges and universities, and community agencies to provide gifted educational services for students, administrators, teachers and parents.

Specialists from school districts and colleges should be trained and made available to Colorado schools and parent groups for sustained consultation on all aspects of program development. Special programs for parents such as the Parents Encouraging Parents Conference should be initiated by the Colorado Department of Education.

6. The costs related to the educational services for gifted students should be the shared responsibility of local, state and federal funding sources. State support is a vital part of the support system for gifted and talented programs.

   Some special programs can be supported by short-term grants from foundations, corporations, government agencies and community resources.

   Funds available for the next few years should be used to help school districts throughout Colorado develop or expand their programs for gifted and talented students.

Project Participants

Adams 12, Northglenn-Thornton
Adams 27J, Brighton
Arapahoe 1, Englewood
Arapahoe 28-J, Adams-Arapahoe (Aurora)
Boulder Re-2J, Boulder Valley
Denver 1, Denver County
El Paso 11, Colorado Springs
El Paso 20, Academy
El Paso RJ-1, Calhan
Gilpin RE-1, Gilpin County
Jefferson R-1, Jefferson County
La Plata 9-R, Durango
Larimer R-1, Poudre
Mesa 51, Mesa County Valley
Routt RE-2, Steamboat Springs
Washington R-1, Akron
Weld 6, Greeley
Adams County BOCES:
- Adams 1, Mapleton
- Adams 12, Northglenn-Thornton
- Adams 14, Commerce City
- Adams 27J, Brighton
- Adams 50, Westminster

Northwest Colorado BOCS
- Grand 1, West Grand
- Grand 2, East Grand
- Jackson R-1, North Park
- Routt RE-1, Hayden
- Routt RE-2, Steamboat Springs
- Routt RE-3J, South Routt

San Luis Valley BOCS
- Alamosa RE-11J, Alamosa
- Alamosa RE-22J, Sangre de Cristo
- Conejos RE-1J, North Conejos
- Conejos 6-J, Sanford
- Conejos RE-10, South Conejos
- Costilla R-1, Centennial
- Costilla R-30, Sierra Grande
- Mineral 1, Creede
- Rio Grande C-7, Del Norte
- Rio Grande C-8, Monte Vista
- Rio Grande RE-33J, Sargent
- Saguache RE-1, Mountain Valley
- Saguache 2, Moffat
- Saguache 26JT, Center

The Clayton Foundation

to develop alternative salary determinants and career ladder approaches to teacher advancement.

ALTERNATIVE SALARY AND CAREER LADDERS

National and state groups have called upon the education profession to create new ways to attract, retain and reward superior teachers for our nation's schools. The response nationally has been to develop new patterns of staffing schools, provide incentives for outstanding performance, recognize master teachers, and develop mentor programs to initiate new teachers to the profession.

With potential teacher shortages and concerns over teacher quality, Colorado must establish new opportunities for teacher career development and recognition to retain superior teachers.

The 2+2 Project in Colorado has supported over 20 pilot projects to research and test the value of innovative programs to advance teaching. These projects are:

- Career ladder projects in Littleton, Northglenn-Thornton, Greeley and Douglas County.
- Mentor teacher programs in Pagosa Springs, Arvada and the University of Northern Colorado.
- Career enrichment and partnership programs in Estes Park, Jefferson County, Wheat Ridge and Lakewood.
- Performance incentive programs in Ovid, Loveland, Golden and Monument.
- Differentiated staffing programs in Cortez and Denver.
- Teacher leadership programs in Fort Collins and Jefferson County.
- Minority paraprofessional recruitment and development in Boulder and Denver.
- Statewide teacher satisfaction research for elementary and secondary teachers in Colorado.

These pilot projects have had mixed results.

1. Mentor teacher, partnership programs, teacher leadership and school-based performance incentive activities have been highly successful.
2. At least three years of planning time and additional funds are necessary to design career ladders at the district level.
3. Differentiated staffing and paraprofessional training programs will take four years to demonstrate measurable results.
4. Merit pay for individual teachers has not produced results in retaining, recognizing and rewarding superior teachers in Colorado or national settings. Colorado districts that set out to develop merit pay programs found themselves shifting to job ladders or incentive programs for all teachers.

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Recommendations

1. The General Assembly and Colorado State Board of Education should have primary responsibility for career development/recognition systems to recruit, retain and recognize outstanding teachers.
2. The General Assembly should assist local districts in meeting the financial requirement by allocating funds on an incentive basis, building upon existing salary schedules and appropriate modifications in the School Finance Act.
3. The state should coordinate the development of guidelines for teacher advancement and recognition which allows for local district variations in size, structure and supportiveness. A planning framework should include:
   - Multiple options for teachers and districts from which to choose the program most suited to their unique needs/goals.
   - A fair selection process.
   - No arbitrary quotas limiting participation.
   - Voluntary participation.
   - Non-competitive and collaborative systems.
   - Provision for keeping the best teachers from permanently leaving teaching responsibilities.
   - Incentive money separate from existing salary schedule.
   - Financial incentives for outstanding performance.
   - Clear criteria for judging outstanding performance in the selection process.
   - Evaluation of accomplishments/results of teachers.
   - Linkages to school and individual performance improvement goals.
   - Both intrinsic and extrinsic motivation approaches for teachers.
   - Extensive teacher, citizen, administrator and board involvement in planning teacher career development and in providing salary incentives.
4. Options for teacher career development are necessary. Local districts should establish opportunities for advancement, recognition and compensation, using the above planning framework.
5. Programs which recognize excellent teachers and provide them with opportunities to mentor other teachers have shown widespread success and should be implemented in Colorado.
6. The present organization of schools and staff structure should be changed in Colorado to allow greater opportunities for teachers to participate in decision making, oversight and school improvement.

Project Participants

Adams 12, Northglenn-Thornton
Arapahoe 6, Littleton
Archuleta 50, Pagosa Springs
Boulder RE-2J, Boulder Valley
Denver 1, Denver
Douglas RE-1J, Douglas County
Jefferson R-1, Jefferson
La Plata 11-JT, Ignacio
Larimer R-2J, Thompson
Larimer RE-3, Estes Park
Sedgwick RE-3, Ovid
Weld 6, Greeley
Southwest BOCS:
Dolores RE-1, Dolores County
Montezuma RE-1, Cortez
Montezuma RE-4A, Dolores
Montezuma RE-6, Mancos
Montrose RE-2, West End
San Miguel R-1, Telluride
San Miguel R-2J, Norwood
San Miguel 18, Egnar
University of Northern Colorado

2+2 PROJECT LIST

ASSESSMENT OF PROSPECTIVE TEACHER/ADMINISTRATOR QUALITY

A. Pilot/Demonstration Projects

1. Northeast BOCES - Haxtun
   Secondary Teacher Induction and Training Program. Alternative preparation and certification with assessment center, training for BA holders. High entrance standards.
2. Jeffco/UCD/Metro - Denver, Jeffco
   Professional Alternatives Consortium. Mentor teachers for first year teachers, also work part-time at university supervising student teachers. Mentors return to classroom after one year.
3. Metro State Teacher Assessment Program - Denver Area
   Alternative preparation certification for BA holders in an urban setting. Open entry, difficult exit.
4. UCB **PROBE** Project - Boulder
   Alternative preparation and certification project leaning toward experiential education. Constructing a model for elementary training.
5. Administrator Technology Utilization Project - CSU/CU/UNC (Statewide)
   Development of a library of appropriate computer programs for use in administrator training.

B. Research Projects

6. Background paper on Teacher Education and Training
7. Policy Development with Deans and Teacher Education Faculty
8. Research Study on Teacher Endorsements
9. Case Study Analysis of High and Low Scoring Teacher Candidates
10. Research Study on Linkage of Test Scores, Performance Assessment and Demographic Factors
12. Commissioner's Seminars on Preparation of Prospective Teachers
13. Conduct hearings at Colorado Institutions of Higher Education on Recommendations from Commissioner's Seminars
14. Policy Development and Publications for Teacher Certification 1987
15. Publish Results of Research Study on State Policies Regarding Teacher Testing
16. Research Study on Role of Board of Examiners for Teachers
17. Study of Quality of Out of State Applicants for Colorado Certification
18. Study of Reciprocity Issues Between Colorado and other States
19. Research Study on Administrative Internships
20. Research Study on Recertification Policies for Administrators
21. Institute Study Committee for Central Office/ Superintendent Endorsement
22. Develop Model for First and Third Year Follow-Up of Administrator Candidates in Colorado
23. Initiate a Review of State Standards for Administrator Preparation Programs in Colorado Universities
24. Coordinate Preparation of Background Paper on Administrative Training in the United States
25. Research Study on Performance Assessment of Prospective School Administrators
26. Research Study Relating Test Scores, Performance Assessment and Demographic Factors
27. Publish Results of Research Study Relative to Legal Issues Associated with the Testing of Professionals
28. Publish Results of Research on State Policies Regarding Administrator Testing
29. Research Study on Quality of Administrator Candidates in Colorado, 1976-1986
30. Coordinate NTE Testing of Prospective Administrators
31. Coordinate Work of Testing Design Committee
32. Research Study on Board of Examiners for Administrators
33. Research Study Regarding Writing Sample for Prospective Administrators
34. Assist CCHE Committee on Models of Administrator Preparation
35. Conduct Comparative Analysis of Colorado Preparation Programs for School Administrators
36. Field Research Study on Recruitment, Selection and Retention of Rural Leaders

ADMINISTRATOR TRAINING

A. Pilot Demonstration Projects

79. Jeffco Administrator Training Content Development Project - Jeffco
    Courses developed for administrators to increase their skills. Classes are available to district and non-district personnel.
80. Rural Leadership Training and Development Program - Limon (BOCES), Leadville (BOCES)
    To develop and implement a model for identifying and assessing potential administrator candidates. Two BOCES, 26 school districts, CASE, and the Colorado Association of Professors of School Administration are cooperating in this project.
81. Northern Colorado BOCES Individualized Administrator Program - Leadership Institute for Educators (LIFE).
    Longmont, Windsor, Loveland, Boulder, Fort Collins, Estes Park Administrators identify areas for their own professional inservice development. An individual prescription is then developed. Support through project director and collegial groups.
82. Adams County/Rural District Management Effectiveness Analysis - Westminster, Commerce City
    To determine if a self-assessment approach is effective in discerning adult leadership style and development of a personal growth plan to integrate management/supervisory/leadership skills.
83. Northern Colorado Leadership Academy - Greeley
    To develop and test state-of-the-art leadership and management training common to public.

private sector and education managers. (UNC, school districts, Hewlett-Packard and Kodak)

84. Teacher Administrator Leadership Development Project Poudre R-1, Harrison High School
To pilot different models of participatory management by creating administrator-teacher teams which will establish an in-school process to deal effectively and efficiently with change.

124. Principal's Center - Pueblo 60
To improve leadership skills of practicing principals, assistant principals, and other educators in school administration.

B. Research Studies

85. Coordinate CDE-CCHE Studies on Administrator Training models

86. Publish results of research study on status of administrator training in Colorado school districts.

87. Background policy paper on administrator training.

88. Research study on administrator recertification.

89. Serve as liaison to Principals' Center at UCD.

90. LEAD Project - collaborative effort with CASE, CDE, Jefferson County Schools

EVALUATOR TRAINING

A. Project Sites

67. Northern Colorado BOCES
Statewide Evaluator Training Program

68. Northern Colorado BOCES
Principal Training in Peer Supervision

69. Pikes Peak BOCS
Multi-District Collaborative Evaluator Training Project

70. San Luis Valley BOCS
Master Training of Trainers

71. Southeastern BOCES
Elements of Effective Instruction, Clinical Supervision (2 projects)

72. Southwestern BOCS
Staff-Level Staff Developer

73. Southwestern BOCS
Follow-up Training for Principals

74. South Platte BOCES
Evaluator Training Project

75. Northeastern BOCES
Cluster Approach to Evaluator Training

76. East Central BOCES
Time Management and the Evaluator/Evaluator Skill Building

77. Northwestern BOCS/Moffat Schools
Effective Instruction and Evaluation Skills

78. West Central BOCES
Resource Assistance Teams/Evaluator Skills Training

117. Weld BOCES
Evaluating Other Evaluators

DROPOUT PREVENTION

A. Pilot/Demonstration Projects

37. Rocky Ford
Home/school liaison concept. Hired two community members to work with families of at-risk children.

38. Huerfano (Walsenburg/Gardner)
Home/school liaison assistance in parenting skills. Pilot activities to enhance children's self-concept.

39. Pueblo 60
Early identification and support to families of at-risk children. Mentorship project in cooperation with Dayton-Hudson Corporation.

40. Weld 6 - Greeley
Hired dropout prevention coordinator to develop K-12 program to keep all students in school.

41. Montrose
Staff development (teacher-to-teacher), middle school attendance project, elementary tutorials, parent training, senior citizen, summer school.

42. Grand Junction
Develop a pre-K-12th grade dropout prevention model. Development of alternatives to suspension of students at middle school level.

43. Adams 1 - Mapleton
Pre-school project, mentorships, development of strategies for at-risk youth. Development of alternatives to suspension of students at middle school level.

44. Durango
Development of alternatives to suspension of students at middle school level.

Each district in numbers 42, 43 and 44 has a task force in place to construct dropout prevention strategies for their own system. Educators, parents, and community members are included.

127. Huerfano Re-1
"Welcome Baby/Preschooler/Kindergartner" Project - Parents as teachers program for children 0-5 who may be at risk of school failure.

B. Research

45. Comparative study of Hispanic students who complete school with those who do not — studies done in Denver and Rocky Ford/Alamosa.

111. Clayton Foundation — Joint G/T dropout study and seminars.

GIFTED AND TALENTED PROGRAMS

A. Pilot/Demonstration Projects

47. Aurora Public Schools
Primary Acceleration Through Enrichment (Prim-ate). K-2 home/school partnership including integration of higher level thinking skills in curriculum and staff and parent training.

48. Mesa Valley 51 - Grand Junction
Pull-out and in-classroom enrichment experience for K-1 able learners.

49. Adams County 12 - Northglenn/Thornton
School teams of parents, teachers, administrators and students are trained to study and refine their programs in light of recent research and recommendations.

50. Brighton 27J - Henderson
Pyramid-designed enrichment program. Data being collected on benefits for lower socio-economic and minority students.

51. Calhan RJT 1
Enrichment for all students individual learning plan for each identified student. Staff development services provided by parents, volunteers, principal.

52. Denver Public Schools
Multi-age Team Teaching model for grades 1-6 at five sites. Staff development and on-going program evaluations.

53. Gilpin County Re-1
Telecommunications project, evaluating effectiveness for rural districts. Involves students, parents, and community members.

54. Poudre R-1 - Fort Collins
Implementation of Renzulli's Enrichment Triad Model with emphasis on curriculum compacting, counseling and acceleration. One elementary school will serve as a model for the district.

55. Weld 6 - Greeley
Middle school program integrating gifted processes with district content objectives. Counseling for students.

56. Steamboat Springs RE-2
Grades 6-8 seminar-based program in math/sciences and arts/humanities.

57. Akron District R-1
Gateway Project to develop a replicable program serving the unique needs of G/T students in a small rural high school.

58. Boulder Valley RE-2J
Secondary Satellite Seminars for students from seven junior high and five high schools, offered late afternoons and evenings. Graduation credit given.

59. La Plata 9-R - Durango
Mentorship/Internship/Seminar for identified high school students. Staff Development inservice for parents.

60. Englewood
Windows on Your World - off-campus seminar programs. Southwest and Asian influences on our culture; Greco-Roman traditions.

61. Jefferson County R-1
K-12 Articulation (long range programming). Workshops for Teacher/Administrator teams.

62. El Paso 11 and 20 (Colorado Springs and Academy)
Pikes Peak Region Gifted and Talented Conference - follow-up will expand network of educators, parents and community members interested in G/T programs K-12.

63. San Luis Valley BOCES
Development of multi-faceted identification model to recognize minority and disadvantaged gifted students.

64. Northwest BOCS
Development of G/T Coordinator position to serve as resident consultant for rural districts and aid in development of local comprehensive programs.

65. Adams County BOCS
Regional summer institute in environmental studies for identified students in grades 8-11. Instructors from districts, Denver University, and Colorado School of Mines.

66. The Clayton Foundation State-wide draw
Clayton Summer Institute - interdisciplinary Arts and Humanities program for students entering grades 7-9. Residential program.

B. Research Projects

111. Gifted Dropouts-Denver Middle School Students (with Clayton Trust).
112. Teacher Training and Certification
113. Parent Education
114. Finance Options

ALTERNATIVE CAREER AND SALARY INCENTIVES

A. Pilot/Demonstration Projects

91. Littleton
Developing a conceptual design for an alternative compensation plan or career ladder to be implemented in January, 1988.

92. Archuleta County 50 - Pagosa Springs
Enrichment of current mentor teacher program to allow mentors and mentees to observe each other during the school day and work together on classroom planning and instruction.

93. Weld 6 - Greeley
To enable the Joint Study Committee on Alternative Compensation to complete the development of a career tree model. To assess taxpayer support for the necessary millage increase.

94. Douglas County RE-1 - Castle Rock
To involve teachers, federation representatives, principals and central office administrators in the development of an alternative approach to career enrichment and advancement.

95. Adams 12 - Northglenn/Thornton
To develop a process for designing an alternative salary schedule and a procedure for obtaining community and staff approval and support.

96. Jefferson County - North Area
To construct and test a model in peer observation and coaching focusing on the development of mentor teachers.

97. Jefferson County - North Area
Building on project #96, trained mentor teachers will complement peer coaching programs with classroom non-mentor teachers.

98. Jefferson County - Central Area
To provide an alternative for career advancement for teachers who have demonstrated excellence in teaching by training them to serve in a variety of areas such as change facilitators, instructional improvement facilitators, planners, and trainers.

99. Larimer County RE-3 - Estes Park
To develop an incentive pay program (bonus package) based on a peer partnering model.

100. Platte Valley RE-3 - Ovid
Developing non-salary means of identifying, recognizing and rewarding outstanding teachers - as with opportunities to attend workshops and conferences at district expense.

102. Southwest BOCES - Cortez
Differentiated roles to train teachers to serve in areas of need within the seven school districts - including counseling, high risk students, substitute teacher training, curriculum development, school/community liaison, staff development, etc.

103. Jefferson County Golden High School - Golden
Financial reward for a department that met previously established student achievement goals.

104. Boulder Paraprofessionals - Boulder
Career ladder model is being developed for paraprofessionals leading to certification as teachers.

105. Thompson Valley - Non-salary incentive - Loveland
Teachers being surveyed about "quality of work life" and will select areas for improvement.

115. Lead Teacher Training Project - Greeley
Develop a cadre of "lead teachers" to serve as on-site clinical supervisors of student teachers, interns, and beginning teachers.

116. Minority Paraprofessional Training Project - Denver
Research, plan and implement a pilot process for assisting minority paraprofessionals to become fully certified classroom teachers.

118. Jefferson County-Green Mountain High School
To develop and implement a plan of shared decision-making by teachers and principal; development of handbook on the process.

121. Ignacio - Teacher Development Project
To examine school planning, differentiated staffing, and non-salary incentives for teachers.

123. Differentiated Staffing - Denver
To create a new school organization to test the validity of the "lead teacher" role in organizing and staffing schools.

B. Research Projects

106. Research Study on Elementary and Secondary Teacher Satisfaction and Expectations with Teaching.

107. Research Study on Teacher Motivation and Needs in Colorado School Districts.

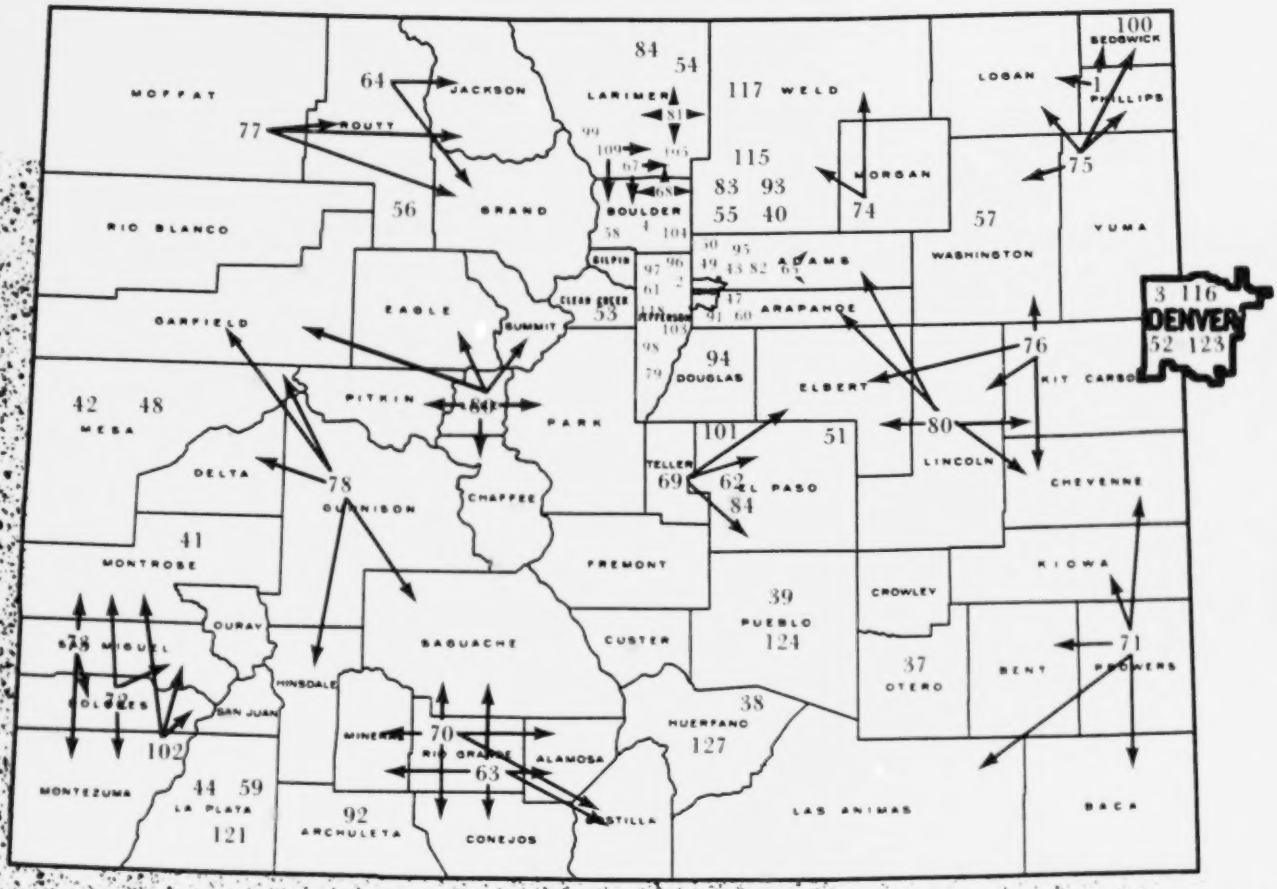
108. Research Study on Teacher Leadership Roles in selected Colorado school districts.

TEACHER RECRUITMENT AND RECOGNITION

109. Northern BOCES
Colorado Educational Employment Clearinghouse Recruitment Project-extensive advertising and job fairs.

110. Teacher Recognition
Outstanding teachers were selected by local districts using several models and were recognized by the State Board of Education.

2+2 PILOT AND DEMONSTRATION SITES



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